

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

BECTON DICKINSON AND)	
COMPANY,)	
)	
Plaintiff,)	C.A. No. 21-833 (CFC)
)	
v.)	
)	
BECKMAN COULTER, INC.)	
)	
Defendant.)	

**PLAINTIFF'S ANSWERING BRIEF IN OPPOSITION
TO DEFENDANT'S PARTIAL MOTION TO DISMISS FOR
FAILURE TO STATE A CLAIM PURSUANT TO FED. R. CIV. P. 12(b)(6)**

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August 19, 2021

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I. NATURE AND STAGE OF THE PROCEEDINGS

On June 7, 2021, Becton, Dickinson and Company (“BD”) filed a complaint alleging that certain Beckman Coulter, Inc. (“Beckman”) flow cytometry devices infringe four BD patents. D.I. 1. BD filed an amended complaint on July 21, 2021. D.I. 9. In response, Beckman has moved to dismiss a single count for failure to state a claim, arguing that one of the four asserted patents—U.S. 7,787,197 (“the ’197 patent”)—is invalid under 35 U.S.C. §101. D.I. 11.

II. SUMMARY OF ARGUMENT

The claims of the ’197 patent are not directed to a natural law or an abstract idea. In arguing otherwise, Beckman misstates the subject matter of the claims and disregards their specific structural limitations that go beyond the natural law of “demagnification” and any abstract idea of the mathematical formula of claim 1.

The Supreme Court’s decision in *Diamond v. Diehr*, 450 U.S. 175 (1981), confirms the validity of the claims at issue here. In *Diehr*, the Supreme Court held that a claim employing the Arrhenius equation to optimize a rubber curing process did “not become nonstatutory simply because it uses a mathematical formula.” *Id.* at 187. Likewise, the claims of the ’197 patent that use a mathematical ratio to define the dimensions of specific system components do not become patent-ineligible simply because they recite a mathematical equation that is derived from a natural law. Indeed, Beckman does not explain how this mathematical ratio, which the

inventor of the '197 patent himself devised, can be considered a natural law or an abstract idea.

Beckman's motion also fails because the claims include an inventive concept that goes beyond any purported natural law or abstract idea. The claims recite a number of system components that are arranged in an unconventional way to provide an entirely new result that is an advance over the prior art. This inventive arrangement provides for exact positioning of a light beam on a sample with greater precision and is less expensive than prior art solutions.

Finally, Beckman's motion is predicated on factual arguments that cannot be resolved at this early stage. Beckman's motion is replete with arguments about what is "conventional" in the art, which is a factual question underlying the §101 inquiry that must be resolved in BD's favor and therefore cannot be used to contradict the '197 patent's description of its invention as a marked improvement over the prior art.

III. STATEMENT OF FACTS

The '197 patent is directed at optical analyzers, of which flow cytometers are one example. Beckman argues that the claims of the '197 patent are directed to "nothing more than the use of 'demagnification.'" D.I. 11 at 4. This oversimplifies the invention of the '197 patent, as reflected in the claims and written description.

A. The '197 Patent Discloses Improved Beam-Adjusting Optics.

In flow cytometry, a light source is used to analyze a sample stream by illuminating and exciting analytes in the sample. A beam emitted from the light source typically travels through a focusing lens to a focal spot within the sample. The light beam must be precisely positioned to excite “biological cells or particles that are few microns in size” and therefore “the precision of the light beam adjustment also needs to be in the micron range.” ’197 patent, 1:49-51.

The ’197 patent explains that “[c]onventional positioning methods typically employ expensive differential micrometers to position the light source itself or optical elements, such as mirrors or prisms.” ’197 patent, 1:53-55. In the first method, the light source is itself moved to change the focus spot of the light beam. In the second, mirrors or prisms deflect the light beam to the desired focus spot. Neither of these methods provides fine control over the position of the focus spot without expensive equipment, and they are therefore difficult to implement at the necessary level of precision.

To address this problem, the ’197 patent describes illumination optics that include “beam-adjusting optics positioned in the light path between the light beam source and the focusing lens, which allow for precise positioning of the focus spot of the focused light beam.” ’197 patent, 2:7-10. Instead of the prior art methods of moving the light source or introducing prisms or mirrors, with the claimed invention,

one can simply move a beam-adjusting lens to position the focus spot. Specifically, the '197 patent introduces one or more additional beam-adjusting lenses to manipulate the equivalent focal length of the optics and change the proportion between movement of a lens and the resulting displacement of the focus spot.

The focal length of a lens is the distance from the lens to the place at which diverging light beams through the lens would appear to converge, which is called the “focal spot.” The optical analyzers of the '197 patent include a focusing lens and one or more beam-adjusting lenses. By manipulating the individual focal lengths of the focusing lens and beam-adjusting lens(es), the displacement of the focal spot relative to the displacement of a beam-adjusting lens is reduced, allowing for fine control of the focal spot's ultimate position. *See, e.g., '197 patent, 7:1-7, 9:46-53.*

Additionally, in systems with multiple lenses, like those claimed by the '197 patent, the “equivalent focal length” is the focal length of a single hypothetical lens having the same focal spot as the multiple lens system. '197 patent, 4:18-23. In contrast, the “effective focal length” is the actual distance between the last lens and the focal spot. *Id.* at 4:42-46. Thus, the effective focal length is a proxy for the overall size of the system. By using a pair of convex and concave beam-adjusting lenses, the invention of the '197 patent is able to drastically increase the equivalent

focal length of the system, without significantly changing its effective focal length or overall size. '197 patent, 3:7-13.

Although the '197 patent generally describes its invention in the context of flow cytometry, it recognizes that “fine control over the focus spot of a[n] illumination beam can be useful in a variety of applications,” including “microscopy and laser scanning cytometry.” *Id.* at 3:43-50. The '197 patent refers to these other applications collectively as “optical analyzers.” *See, e.g., id.* at Abstract.

B. The Claims Of The '197 Patent Are Directed To Improved Optical Analyzers.

The claims of the '197 patent are directed to a new and useful discovery regarding the use of a beam-adjusting lens to control the resulting focal spot. For example, claim 1 recites:

1. An optical analyzer comprising:

(a) a light source adapted to emit an approximately collimated light beam along a light path;

(b) a focusing lens positioned in the light path, adapted to focus the light beam onto a focal spot within a sample analysis region, wherein said focusing lens has a focal length f_1 ,

(c) beam-adjusting optics positioned in the light path between the light source and the focusing lens, wherein said beam-adjusting optics comprises at least one beam-adjusting lens that is mounted in a positioning device that allows movement of the beam-adjusting lens in a plane perpendicular to the light path, wherein said beam-adjusting lens has a focal length f_2 , wherein said beam-adjusting lens and said focusing lens are separated by a distance z along the light path, and wherein $|f_2 - z| \geq 4 \cdot f_1$.

Thus, the optical analyzer of claim 1 has numerous components, including a light source, a focusing lens, and beam-adjusting optics with at least one beam-adjusting lens mounted in a positioning device. Claim 1 further specifies that the positioning device allows the beam-adjusting lens to move in a plane perpendicular to the light path from the light source. In addition to these components, claim 1 defines the focal length of the focusing lens and beam-adjusting lens, as well as the distance between the two. Instead of defining these dimensions with exact measurements, however, claim 1 specifies a relationship among the three using a mathematical equation created by the inventor of the '197 patent.

Beckman argues that claim 1 should be taken as “representative of the claims of the '197 patent.” D.I. 11 at 7. But, the '197 patent includes two additional independent claims, neither of which includes the mathematical relationship “ $|f_2 - z| \geq 4 \cdot f_1$.” Claim 5 is directed to an embodiment with “a divergent lens having a focal length f_2 , wherein f_2 is negative, and a convergent lens having a focal length f_3 , wherein f_3 is positive, wherein said beam-adjusting lens is said divergent lens or said convergent lens, wherein $f_2 = -f_3$.” In other words, claim 5 recites an embodiment having a pair of convex and concave beam-adjusting lenses with corresponding focal lengths. Similarly, claim 6 is directed to an embodiment having “a plano-concave lens having a focal length f_2 and a plano-convex lens having a focal length f_3 .” Dependent claims 7-13 specify the focal lengths of the plano-concave and plano-

convex lenses of claim 6 relative to that of the focusing lens using different mathematical relationships than claim 1.

IV. ARGUMENT

Under *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014), the first step in a §101 analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* at 217. The second step is to “search for an ‘inventive concept’—*i.e.*, an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself.” *Id.* at 217-218. (internal quotations omitted).

The Supreme Court has also recognized that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo Collaborative Servs. v. Prometheus Labs.*, 566 U.S. 66, 71 (2012). For this reason, this Court has acknowledged that “[t]he Supreme Court and the Federal Circuit have cautioned against oversimplifying a patent’s claims when conducting a § 101 analysis.” *Mod Stack LLC v. Aculab, Inc.*, No. 18-332-CFC, 2019 WL 3532185, at *3 (D. Del. Aug. 2, 2019) (citing *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1313 (Fed. Cir. 2016); *Alice*, 573 U.S. at 217). Here, Beckman mischaracterizes the claims of the ’197 patent by ignoring the actual language of the claims and thus wrongly restricting their subject matter to a supposed natural law and abstract idea.

A. The Claims Of The '197 Patent Are Directed To Patent-Eligible Subject Matter.

Under *Alice* step one, Beckman wrongly argues that the claims of the '197 patent are directed to both the alleged “natural law of demagnification” (D.I. 11 at 14) and the alleged abstract idea of “reduced sensitivity of the focal spot adjustment to movement of the beam-adjusting lens” that is “the application of the mathematical principle . . . $|f_2 - z| \cong 4 \cdot f_1$ ” (*id.* at 20). Neither exception to patentability is properly applied to the claims of the '197 patent.

1. The Claims Are Not Directed To A Natural Law.

“The Step 1 ‘directed to’ analysis . . . depends on an accurate characterization of what the claims require and of what the patent asserts to be the claimed advance.” *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1294 (Fed. Cir. 2020). In arguing that “[t]he '197 patent is directed to the natural law of demagnification” (D.I. 11 at 14), Beckman “describ[es] the claims at such a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016).

Beckman states that “demagnification” is “the well-known principle of optics that a lens can make large faraway things look small” akin to “look[ing] in the

‘wrong end’ of a telescope or binoculars.” D.I. 11 at 4.¹ That is true, but immaterial for the ’197 patent goes beyond the natural laws of optics. It describes a series of inventive apparatuses that use beam-adjusting optics to improve upon prior art optical analyzers by facilitating precise alignment of a focal spot within a sample. Each of the claims requires a positioning device that manipulates a beam-adjusting lens to allow for the movement of a focal spot within a sample analysis region. Moreover, the claimed sample analysis region confines the claims to applications requiring the optical interrogation of a sample using a particularly ordered combination of components that go beyond the basic principle of demagnification.

Beckman misplaces reliance on *American Axle & Manufacturing, Inc. v. Neapco Holdings LLC*, 967 F.3d 1285 (Fed. Cir. 2020) (“*American Axle II*”) (D.I. 11 at 15-17). There, the Federal Circuit considered claims generally related to the field of tuning a propeller shaft liner to produce a frequency that dampens multiple types of vibrations on the shaft. 967 F.3d at 1289-90. It held that claim 22, which recited, *inter alia*, “tuning a mass and a stiffness of at least one liner” “wherein the at least one liner is a tuned resistive absorber for attenuating shell mode vibrations

¹ Beckman’s alternative characterization that “there is nothing more to [the claims] than the basic two-lens system that makes the principle of demagnification work” (D.I. 11 at 17) illustrates its mistaken proposition that claim 1 is representative. Claims 5-13 each require at least *three* lenses, but Beckman ignores these embodiments.

and wherein the at least one liner is a tuned reactive absorber for attenuating bending mode vibrations,” was directed to a natural law, Hooke’s Law, which “relat[es] frequency to mass and stiffness.” *Id.* at 1293-94. In contrast, the Federal Circuit held that claim 1, which recited, *inter alia*, an additional limitation of “positioning the at least one liner such that the at least one liner is configured to damp” vibrations within specific cut-off points, was not directed to a natural law. *Id.* at 1300-01. Like claim 1 (but unlike claim 22) of *American Axle II*, the claims of the ’197 patent include additional limitations, including positioning of various components, that go beyond the natural law of demagnification. *Id.* at 1300 (“The mere fact that any embodiment practicing claim 1 necessarily involves usage of one or more natural laws is by itself insufficient to conclude the claim is directed to such natural laws.”).

Beckman stretches the language of *American Axle II* as applying to “claims involving ‘application of a natural law’ without limitations to a ‘particular method.’” D.I. 11 at 15. In actuality, *American Axle II* condemns only “[c]laiming a result that involves ***application of a natural law*** without limiting the claim to ***particular methods***.” 967 F.3d at 1295 (emphasis showing language quoted by Beckman). This full quote shows that *American Axle II* concerns claims that preempt results of a natural law without meaningful limitations as to how those results could be achieved. The claims of the ’197 patent do not claim all results of the natural law of demagnification, or even all optical analyzers that employ the natural law of

demagnification. They are instead directed to specific novel apparatuses that use the natural law to achieve precise adjustments of the optics in an optical analyzer.

Beckman also wrongly relies on the written description's statement that its disclosure is "exemplary of the principles of the invention and is not intended to limit the invention to the embodiments illustrated." D.I. 11 at 16, 17, 21 (quoting '197 patent, 5:62-67). "[W]hile the specification may help illuminate the true focus of a claim, when analyzing patent eligibility, reliance on the specification must always yield to the claim language in identifying that focus." *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 766 (Fed. Cir. 2019). Here, the claims are directed to optical analyzers having specific configurations and relative dimensions of each component. The written description does not render the claims, which are the proper focus of the §101 analysis, abstract.

In fact, the '197 claims include a light source, a collimated light beam emitted from the light source, a focusing lens positioned in the path of the light beam, a sample analysis region with a focal spot, and beam-adjusting optics. The beam-adjusting optics in claim 1 comprise at least one beam-adjusting lens and a positioning device to move the beam-adjusting lens along a plane perpendicular to the light beam. This positioning device is a critical component that is not dictated by any natural law; it creates movement of the lens in a plane perpendicular to the light beam that allows for fine positioning of the focal spot. Claims 2 and 3 further

specify the shape of the beam-adjusting lens, and the specification explains that a cylindrical versus spherical lens provide different effects on the focal spot. '197 patent, 2:55-60.

The focal lengths of the focusing lens and at least one beam-adjusting lens are also specified—using the mathematical ratio $|f_2 - z| \cong 4 \cdot f_1$ that depends on the distance between the lenses. This formula is functionally no different than using dimensional ranges that would be indisputably non-abstract. Beckman's argument that “nothing about the recited cutoff value of ‘4’ in ‘4·f₁’ is described as critical to the principle; the specification acknowledges that the principle is a general one and also recites ‘2,’ and claim 2 recites ‘6’” (D.I. 11 at 17) only highlights that the claimed mathematical ratio is non-abstract. The fact that it includes a cut-off value not found in any natural law reinforces that the ratio functions as a concrete dimensional limitation on the claimed configuration of lenses.

Claims 5-13, which Beckman ignores, include at least *two* beam-adjusting lenses having specific shapes such as “diverging” (*i.e.*, concave), “converging” (*i.e.*, convex), plano-concave, or plano-convex, along with a positioning device that is able to move at least one beam-adjusting lens along a plane perpendicular to the light beam. These claims also include different ratios and relationships among the focal lengths of each lens. Where “claims recite more than a mere result” and “there is no contention that the only thing disclosed is the result and not an inventive

arrangement for accomplishing the result,” “[t]he idea is non-abstract and there is no need to proceed to step two of *Alice*.” *Finjan, Inc. v. Blue Coat Sys.*, 879 F.3d 1299, 1305-06 (Fed. Cir. 2018).

Nor is Beckman correct in maintaining that the claims lack any “‘improved’ or ‘novel’ features beyond the result of the natural law.” D.I. 11 at 17-18. Whether features are improved and novel, as opposed to well-known and conventional, is a factual issue that cannot be resolved now. *See infra* Section IV.C. In any event, there can be no dispute that the claims of the ’197 patent set forth a specific arrangement of components, and as explained in the specification, this arrangement confers substantial advantages over the prior art. *See, e.g.*, ’197 patent, 7:1-7, 9:46-53. Moreover, the question of whether a claim is novel or nonobvious is different than whether it is “routine and conventional under *Alice* step two.” *See, e.g., CR Bard Inc. v. AngioDynamics, Inc.*, 979 F.3d 1372, 1384 (Fed. Cir. 2020).

Lastly, Beckman fares no better in arguing that “a repeated focus of section 101 case law is whether the claims would preempt activity in the relevant field beyond a specific, inventive application.” D.I. 11 at 18. The claims of the ’193 patent do not prevent others from using the natural law of demagnification or the claimed mathematical ratio, and instead are confined to the structure and techniques of a novel apparatus in the field of sample analysis. *See, e.g., McRO*, 837 F.3d at

1316 (noting that the claim “does not preempt approaches that use rules of a different structure or different techniques”).

As an example of “how the claim might read on general scientific activities outside any one particular application,” Beckman provides one page of a textbook describing a generic lens bench for measuring the focal length of a test lens. D.I. 11 at 18-19 (citing Smith, D.I. 12 at Ex. A). Beckman, however, does not even attempt to explain how this lens bench practices each limitation such that it would be foreclosed by the claims of the ’197 patent. Even so, because that “which would literally infringe if later in time anticipates if earlier,” whether the claims of the ’197 patent read on the Smith textbook is more appropriately considered in the context of novelty under §102, not patent eligibility under §101. *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1378 (Fed. Cir. 2001).

2. The Claims Are Not Directed To An Abstract Idea.

Beckman’s alternative argument that the claims are “nothing more than the application of the mathematical principle reflected in the expression recited in the specification, $|f_2 - z| \cong 4 \cdot f_1$ ” also fails.² D.I. 11 at 20. As the Supreme Court has cautioned, “a claim drawn to subject matter otherwise statutory does not become

² This mathematical formula appears only in independent claim 1, from which claims 2-4 depend. Beckman makes no argument that the remaining claims are directed to an abstract idea.

nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 187. The claims of the ’193 patent include numerous components that go beyond the dimensional ratio between the focal lengths of the lenses and distance between them.

The Supreme Court’s analysis in *Diehr* is instructive.³ There, the Court held that claims to a method of curing rubber employing a mathematical formula to optimize the curing process was eligible for patenting. 450 U.S. at 188 (“Arrhenius’ equation is not patentable in isolation, but when a process for curing rubber is devised which incorporates in it a more efficient solution of the equation, that process is at the very least not barred at the threshold by § 101.”). As the Supreme Court later explained, the additional claim limitations in *Diehr* “transformed the process into an inventive application of the formula.” *Mayo*, 566 U.S. at 81. Similarly, the additional claim limitations of the ’197 patent transform the recited mathematical formula into a specific apparatus that goes beyond an abstract concept.

The Federal Circuit’s decision in *Thales Visionix Inc. v. U.S.*, 850 F.3d 1343 (Fed. Cir. 2017), is also instructive. The claims upheld in *Thales* recited a particular arrangement of sensors to track the movement of an object using navigation

³ Although *Diehr* was decided before *Alice*, later decisions have confirmed that it applies to step one. See, e.g., *Thales Visionix Inc. v. U.S.*, 850 F.3d 1343, 1347-48 (Fed. Cir. 2017).

equations “dictated by the placement of the inertial sensors and application of laws of physics.” 850 F.3d at 1348. The Federal Circuit focused on the specific improvements enabled by the invention in holding that these claims were not directed to an abstract idea *Id.* at 1348-49 (noting, *inter alia*, that the “claims provide a method that eliminates many ‘complications’ inherent in previous solutions for determining position and orientation of an object on a moving platform.”). “That a mathematical equation is required to complete the claimed method and system does not doom the claims to abstraction.” *Id.* at 1349.

Beckman cites *Yu v. Apple Inc.*, 1 F.4th 1040 (Fed. Cir. 2021), as “analogous” (D.I. 11 at 20), but there, the Federal Circuit emphasized the “mismatch” between the narrow specification embodiments and the broad claims to an abstract idea. *Id.* at 1044-45 (comparing the “two-lens, two-image-sensor configuration” of the claims with the “four-lens, four-image-sensor configuration” described in the specification). In the ’197 patent, the claims are no broader than the specific embodiments described in the patent. *Compare* ’197 patent, claim 1 *with id.* at 6:1-32. And as discussed above, these claimed embodiments have concrete limitations beyond an abstract idea.

B. The Claims Of The ’197 Patent Supply The Inventive Concept Of Positionable Beam-Adjusting Optics.

Because the claims of the ’197 patent are not directed to a natural law or abstract idea under step one, there is no need to proceed to step two. In any event, the claims also satisfy step two by supplying an inventive concept that “in practice

amounts to significantly more than a patent upon the ineligible concept itself.” *Alice*, 573 U.S. at 217-18.

Beckman acknowledges that the search for an inventive concept must look at the “elements of each claim both individually and as an ordered combination,” D.I. 11 at 22 (citing *Alice*, 573 U.S. at 217, 221) (internal quotations omitted), yet it never evaluates the inventiveness of the entire claimed apparatus. Instead, Beckman argues that “[o]nly conventional optical components are recited.” D.I. 11 at 22. But “[t]he inventive concept inquiry requires more than recognizing that each claim element, by itself, was known in the art” and “an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” *Bascom Glob. Internet Servs. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016).

The claims of the ’197 patent include a series of components that achieve the desired result of precise positioning of a focal spot in a sample analysis area while doing more than simply directing the application of the supposed natural law of demagnification or the supposed abstract idea of the claimed mathematical ratio. For example, the claims provide for a positioning device that manipulates an additional beam-adjusting lens that is not used in the prior art in order to relocate the focal spot. The claims further specify that this positioning device moves the beam-adjusting lens in a plane that is perpendicular to the light beam. These tangible and limiting

features of the claims of the '197 patent “confine[] the claims to a particular, useful application of the principle” of optics that they harness. *Mayo*, 566 U.S. at 84. In doing so, they supply substantially more than the supposed natural law or abstract idea.

C. Beckman’s Motion In All Events Raises Factual Issues That Prevent Resolution Of §101 Eligibility Now.

The standard on a motion to dismiss under Rule 12(b)(6) is whether, under any plausible reading of the complaint, the plaintiff would be entitled to relief. *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007). The court must accept as true all factual allegations in the complaint, and view them in the light most favorable to plaintiff. *Umland v. Planco Fin. Servs.*, 542 F.3d 59, 64 (3d Cir. 2008).

“While the ultimate determination of eligibility under § 101 is a question of law, like many legal questions, there can be subsidiary fact questions which must be resolved en route to the ultimate legal determination.” *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1128 (Fed. Cir. 2018). Some of these fact questions “cannot be answered adversely to the patentee based on the sources properly considered on a motion to dismiss, such as the complaint, the patent, and materials subject to judicial notice.” *Id.*

Beckman’s motion raises a number of factual issues that cannot be resolved at the motion to dismiss stage. Most notably, with respect to both steps of the *Alice* framework, Beckman contends that the individual elements of the claims are well-

known or conventional. *See, e.g.*, D.I. 11 at 18-19 and 21-22. With respect to step two, Beckman argues that the ordered combination of elements in the claims is similarly non-inventive. *See id.* at 23. But, “[w]hether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018). Although Beckman points to a prior art textbook and characterizations of the prior art in the patent specification, the factual inquiry “goes beyond what was simply known in the prior art.” *Id.* “The mere fact that something is disclosed in a piece of prior art, for example, does not mean it was well-understood, routine, and conventional.” *Id.*; *see also CR Bard*, 979 F.3d at 1384. Indeed, Beckman’s arguments are contradicted by the ’197 patent’s focus on the ordered combination of elements as providing the inventive benefit of the claimed optical analyzers. *See, e.g.*, ’197 patent at 6:26-32 (“The optical effect of lens 12 on the illumination optics, relative to illumination optics having only focusing lens 13, is two-fold,” noting “the addition of lens 12” and “displacement of lens 12 in a plane perpendicular to the optical path.”); *see also id.* at 7:46-52.

Similarly, “improvements in the specification” can “create a factual dispute regarding whether the invention describes well-understood, routine, and conventional activities” such that the court “must analyze the asserted claims and determine whether they capture these improvements.” *Berkheimer*, 881 F.3d at 1369

(citations omitted). As discussed previously, the '197 patent describes improvements to prior art positioning techniques that demonstrate the unconventionality of the claimed apparatus, and which are embodied in the claims.

As a final example, Beckman proffers the textbook reference as supposedly showing that the claims of the '197 patent “read on general scientific activities” to support its arguments of preemption. D.I. 11 at 19. The question of whether the claims “read on” the lens bench of this reference is a factual one. Indeed, the preemption analysis itself must be based on factual, record evidence. *See, e.g., McRO, Inc.*, 837 F.3d at 1315 (“Defendants’ attorney’s argument that any rules-based lip synchronization process must use the claimed type of rules has appeal, but no record evidence supports this conclusion.”).

Each of these factual issues must be resolved in BD’s favor at the motion to dismiss stage, and therefore preclude a determination that the claims of the '197 patent are not plausibly patent eligible under § 101.

V. CONCLUSION

The Court should deny Defendant’s partial motion to dismiss.

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CERTIFICATE OF COMPLIANCE

I hereby certify that the text of the foregoing document uses a 14-point Times New Roman typeface and contains 4,874 words as determined by the word count feature of Microsoft Word (excluding the caption, tables, and signature block).

August 19, 2021

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CERTIFICATE OF SERVICE

I hereby certify that on August 19, 2021, I caused the foregoing to be electronically filed with the Clerk of the Court using CM/ECF, which will send notification of such filing to all registered participants.

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